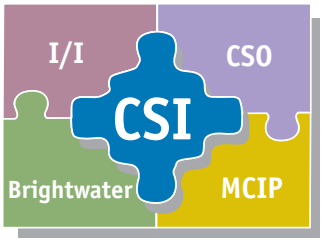
CSI Conveyance System Improvements PROJECT

Summer 2002

King County WASTEWATER TREATMENT DIVISION

What is the Conveyance System Improvements Project?

King County is responsible for conveying and treating wastewater collected by 34 local sewer agencies in the King County region. The County is engaged in a multi-year, multidisciplinary effort called the Conveyance System Improvements (CSI) project, one component of the Regional Wastewater Services Plan. This project is focused on upgrading and improving the existing regional conveyance system and planning for future conveyance extensions. The County's regional conveyance system consists of interceptor sewers, pump stations, forcemains, regulators, and tunnels that transport wastewater from local sewers to the County's two regional secondary treatment plants. The CSI project is integrated with other King County programs including the Infiltration/Inflow (I/I) Control Program, the Brightwater Treatment Plant, the Combined Sewer Overflow (CSO) Program, and Major Capital Improvement Program (MCIP).



The CSI Project integrates with other related project efforts.

CSI INTEGRATES WITH…
Soos Creek Water and Sewer District

In late 2001 and early 2002 King County and the Soos Creek Water and Sewer District (WSD) agreed on a local and regional plan to identify and implement trunk sewer system improvements necessary for southeast wastewater services to Soos Creek and Black Diamond. This plan, detailed in a report entitled the "Mill Creek/Green River Subregional Planning Area Final Task 250 Supplemental Report, Working Alternative 3A Soos Planning Zone," identifies pump stations, forcemains, and gravity lines required for the direct connection of the Black Diamond local system to the King County system. This plan optimizes the use of both King County and Soos Creek WSD facilities.

The agreement strikes a balance of costs and facilities between the regional and local ratepayers, and represents the lowest public cost alternative for service to that area. The biggest plus to new regional facilities in this area is the flexibility to accommodate future growth within south King County and to maximize long-term facility use.

The CSI team represented King County in the planning process. The result was a set of commitments, outlined below, that will serve as the foundation to move this facility improvement effort forward.

- King County will design, construct, own, and operate three new pumping stations in the Soos Planning Zone, and approximately ten miles of sewer pipeline. (The proposed general locations of the three pump stations are shown on the map on page 2, as "PS B", "PS D", and "PS H".)
- King County will design, construct, own, and operate an interceptor sewer running from the existing Black

Continued on page 2

Continued from front page

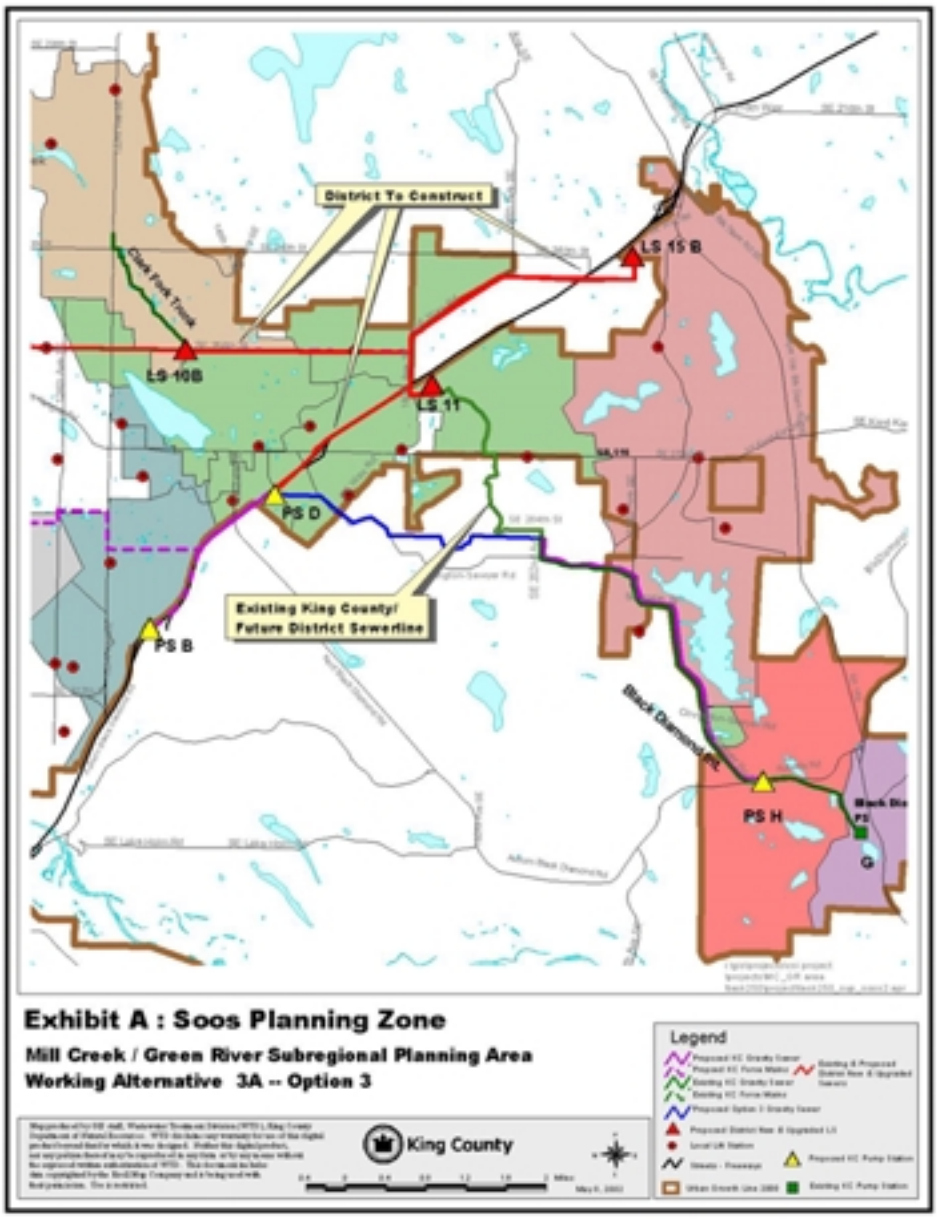
Diamond Trunk Sewer near SR 516 to King County's new PS D pump station. (The general route of this planned interceptor is also shown on the map.)

- King County will cooperate with the Soos Creek WSD in the development and operation of both existing and planned regional sewer facilities.
- Conveyance of Black Diamond flows will eventually be entirely through King County facilities. Conveyance of flows from other areas within the District boundaries will eventually be split between District and Regional facilities.

These commitments achieve King County's goals for sewer improvements in the Soos Planning Area, and ensure that the benefits of the improvements will be provided to the widest possible area and the greatest number of residents.

"We've established a good solution in the Soos Creek Planning area," said Mann-Ling Thibert, King County project manager. "Folding the goals of the two agencies into this process creates a 'win-win' for everyone."

The CSI team will now begin work on the first of several items outlined in the agreement. Specifically, the two agencies will work together on the design and configuration of the new facilities, jointly decide how to handle technical issues relating to the project, and arrange agreements on transferring ownership of certain parts of the existing sewer systems.



King County Conveyance System Improvements (CSI) Project
Major Milestones

2002				2003			
Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
• North Lake Washington, South Lake Sammamish, North Lake Sammamish planning continues through **Q2 2003** in conjunction with Brightwater Systems decisions	• North Lake Washington, South Lake Sammamish, North Lake Sammamish planning continues • South Green River Planning Supplements completed	• South Lake Sammamish planning completed	• North Lake Sammamish planning completed • South Green River Projects (selected) to predesign	• North Green River planning completed • North Lake Washington (Brightwater) projects to predesign	• SE Lake Washington planning completed • South Lake Washington planning completed	• NW Lake Washington planning completed • South Lake Sammamish projects to predesign	• Final summary reports • CSI contract completed

Regional Infiltration/ Inflow Control Program

Coordination between CSI and the Infiltration and Inflow (I/I) program has been strengthening since it was last reported in Spring 2000. The goal of the I/I program is to identify extraneous I/I flows in local conveyance systems, and to develop a long-term comprehensive regional strategy for reducing I/I. Two seasons of aggressive flow monitoring by the I/I program now provide measurable and reliable stormflow information for long-term facility planning.

Current efforts include ongoing sensitivity analysis for I/I reduction of all active CSI project areas to test possible future impacts. Benefits will vary by project and basin, but removing I/I from the conveyance system may provide a substantial capital cost savings.

The focus for the CSI team is to continue to identify those CSI projects that will be aided most by I/I reduction and further, to identify pre-design and design phases of those projects that can be timed to benefit most from I/I reduction. Possible benefits that may apply include the delay or elimination of CSI upgrades and projects. The goal of the CSI team's analysis effort is to answer three questions:

1. Could I/I reduction make a difference?
2. Would it be cost effective?
3. What is the schedule, and what needs to happen now to coordinate I/I reduction with the CSI project?

CSI Progress to Date

Wastewater Basin Planning The South Lake Sammamish Basin planning to develop working alternatives for conveyance upgrades, diversions, and projects to attenuate peak flows are expected early in the fall of 2002. Planning in the **North Lake Sammamish Basin** is just beginning and is expected to be completed in late 2002. While there are no significant problems in this high growth basin, flow management planning will be coordinated with the Brightwater Treatment Plant siting process. The **North Lake Washington Service Area** has completed part one of a two-part design solution to increase the reliability of the Sheridan Beach collection system and reduce the probability of future flooding events. The project is expected to be completed by the end of 2002.

Project Specific Planning Within the **South Green River Planning Area**, project specific planning was completed early in 2001 and the CSI team continues to coordinate with local sewer agencies in south King County to detail needed conveyance improvements in both the regional and local systems. The Soos Creek Water and Sewer District work is discussed in this issue. Predesign efforts on the agreed-upon facility configuration will now move forward. The current working alternative for the Kent and Auburn planning zones calls for a separate pipeline near the West Valley Highway, called the Southwest Interceptor**.** It would divert flow from south Auburn around the Auburn Interceptor and relieve the capacity problems in the existing line.

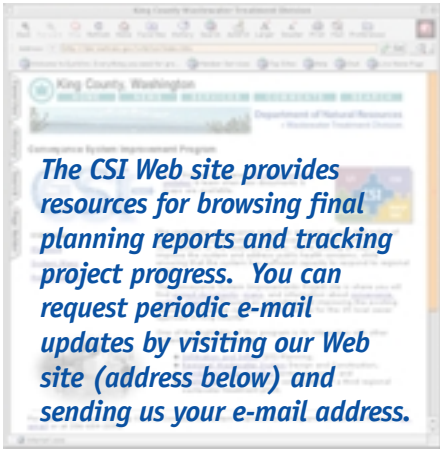
Next Steps The CSI project schedule and milestones are shown at the bottom of page two. This schedule outlines projected dates of completion of the basin plans. After the plans are completed, the design and construction teams then implement the working alternatives defined in the planning effort. The CSI project schedule is subject to change, as the CSI team addresses the many local and regional system issues with flow management. You can also find the most current schedule on the CSI website ***http://dnr.metrokc.gov/wtd/csi.***

Local Sewer Agency Involvement is Key

Local sewer agencies are an important part of the CSI project. This project provides an opportunity for the County and local agencies to jointly address common conveyance issues, leverage available resources, and minimize customer disruption. The County values and encourages local sewer agency involvement as planning in the wastewater service area moves forward.

More Information?
Contact Bob Peterson, CSI Project Manager at
(206) 684-2093
or by e-mail at
bob.peterson@metrokc.gov

The CSI Web site provides resources for browsing final planning reports and tracking project progress. You can request periodic e-mail updates by visiting our Web site (address below) and sending us your e-mail address.



King County
Department of
Natural Resources and Parks
Wastewater Treatment Division

VISIT OUR WEBSITE AT http://dnr.metrokc.gov/wtd/csi/

Contacts for King County's Other Wastewater Treatment Division Programs

Major Capital Improvements Program (MCIP)
Christie True,
Program Manager
206/684-1236
christie.true@metrokc.gov

Infiltration and Inflow (I/I) Control Program
Dan Sturgill,
Program Manager
206/684-1242
dan.sturgill@metrokc.gov

Conveyance Program
Gunars Sreibers,
Program Manager
206/684-2113
gunars.sreibers@metrokc.gov

Brightwater Siting and Mitigation
Michael Popiwny,
Program Manager
206/684-6779
michael.popiwny@metrokc.gov

Combined Sewer Overflow (CSO) Program
Karen Huber,
Program Manager
206/684-1246
karen.huber@metrokc.gov

This material is provided in alternative formats for individuals with disabilities upon request by calling the Wastewater Treatment Division at 206-684-1280.

804268HGD.P65 12/02M

ADDRESS SERVICE REQUESTED

King County
Department of Natural Resources and Parks
Wastewater Treatment Division
Conveyance System Improvements Project
King Street Center, KSC-NR-0507
201 South Jackson Street
Seattle, WA 98104-3855

PRESORT
STANDARD
US POSTAGE
PAID
SEATTLE, WA
PERMIT NO. 836